Philosophical Transactions

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I. *An Account of Animals and Shells ſent from* Carolina *to Mr* James Petiver, *F. R. S.*

Sect. I. The *Cruſtaceous Animals* are,

1. "THE *Thorny-edged* CAROLINA *Crab.*

Cancer CAROLINIANUS marginibus ſpinoſis. *an* Guaja *alia ſpecies* Marcgr. 182. fig. 183. 1 ? *an* Pagurus *Reidjungan* Rumph. Hiſt. Nat. *Amboinæ* p. 11. c. 8. Tab. 7. Fig. R ?

Each ſide of this Crab is arm'd with a ſtrait and ſtrong Thorn, the Edges from thence to its Mouth is beſet with many ſmaller, as are ſome parts of the Claws, particularly next the Body; its Back is variouſly ponnc't with Sand like Warts, which, with other particulars, will be beſt underſtood by its Figure, which I deſign in my 3d, if not in my 2d Book of Decades. *This* Crab *our Worthy Friend Dr* Liſter, *her Majeſty's Phyſician, was pleaſed to give me.*

2. The red blotted CAROLINA Crab.

Cancer CAROL. lituris elegantèr rubris *GAZOPHIL. NAT. Tab.* Fig. *an* Cancer, marinus lævis *Rumph.* Hiſt. N. *Amboin.* p. 10. c. 7. 1. Tab. 6. Fig. N ? *The variable ſpots on the back of this are more eaſily known by the Figure I have given of it than can be expreſt in words.*

3. Cancer *an* CAROL. ruber, vermiculis quaſi, maculiſque palleſcentibus. *Its* Back *is red like a boiled* Lobſter, *and interſperſt with ſmall pale ſpots, and intorted ramifications, reſembling our* White Falmouth Corall, *but much bleſſer, tho*

tho in ſome places more branched. I take this to be a Caroliua Crab, *but are not certain, however in the interim it may be diſtinguiſhed by the name of the* Vermicular Red Crab.

4. *The* 5 *holed* CAROLINA *Sea-Urchin or Fritter:* Echinus compreſſus CAROL. &c. *Muſei Noſt.* 125. Fig.

This is a very ſingular Animal, having 5 *oblong perforations thro the body of the Shell,* viz. 4 *againſt as many points of a* 5 *ray'd Star, lying in the midſt of the Shell; the other is placed between two of its beams, as may be plainly ſeen and underſtood by my* Figure: *theſe are of different magnitudes, having ſeen them from leſs than* 2 *inches to almoſt* 4 *diameter, and this laſt, in the midſt where its thickeſt exceeds not half an inch, and gradually to its edges, which are thinner than a Shilling.*

I am obliged to my very generous Friend Dr Liſter *for the firſt of theſe wonderful Animals, and very lately to* Madam Williams, *a Gentlewoman whom I am alſo highly obliged to, for moſt of the following Shells,* viz.

Sect. II. *Bivalves,* of which kind are *Schollops, Cockles, Oyſters, Muſcles,* &c. in mentioning theſe and other Tribes, I ſhall follow the accurate Order of *Dr Liſter's Hiſtory of Shells.*

5, Mytulus CAROLIN. latus ſtriis rugoſis.

An *Pectunculus* ſtrijs planis & deutatis inſignitus *Liſter* Hiſt. *Conchyl.* L. 16. 3. Tab. 242. Fig. 79? *Theſe vary in bigneſs; a valve of the largeſt, which was* 2 *inches long and three quarters broad, weighed* ʒiijß. *The Noſe lies in the midſt of its hinge; the* Striæ *are flat and mulled, like the edges of a new Shilling: each Valve is flattiſh at one end and compoſed of about* 8 *furrows. My late kind Friend* Mr Robert Rutherford *I am obliged to for the firſt of theſe Shells.*

6. *Mytulus* JAMAICENSIS Pectunculi noſtri eſculenti facie *nobis.* Pectunculus denſe ſtriatus, margine fere inæquali & ſinuoſa Liſt. *Conch. L.* 3. *Tab.* 229. *Fig.* 64.

This

This is diſtinguiſht from the laſt in being leſs, having ſmaller Striæ *and ſmooth (much reſembling our* common Cockle, *Muſ. Noſt.* 835) *but particularly in being Ear-noſed,* viz. *inclining more towards one end of the hinge, whereas the laſt was in the middle. I take the native colour of this Shell to be Cheſtnut, but the dead ones change black or white, as they are either dy'd in the Mud, or blancht by the Sun on the Shore.*

7. Chama CAROL. levis & lævis.

All of this kind were dead Shells, ſo that I can ſay nothing of their Colour; a valve of the largeſt tho 2 *inches and* $\frac{3}{4}$ *long and about an inch and* $\frac{3}{4}$ *broad, and* $\frac{1}{2}$ *inch high, weigh'd but* ʒj *and* $\frac{1}{4}$ *and* 6 *grains,* i. e. *in all* 81 *grains, yet ſome of the ſame dimenſions weighed a few grains heavier.*

8. Chama CAROL. parva, faſcijs fere lævibus.

This Shell reſembles our Nut-Muſcle. *Muſ. noſt* 831. *but is thicker and one end pointed; we have an* Engliſh Sea Shell *like this, which I may in a little time have an occaſion to ſpeak of.*

9. *Chama* CAMPEACHEANA alba, faſciata tenuis.

Pectunculus albus tenuis rhomboides, rarioribus faſcijs exaſperatus *Liſt.* H. C. L. 3. Tab. 308. Fig. 141. The white Campeachy Spoon-Muſcle.

This Shell is ſo thin and brittle, it rarely comes to us whole. The curious Dr Liſter *gave the firſt of theſe* 4 Auguſt 19, 1697. *and my kind Friend* Mr Fifield, Surgeon, *has ſince brought it me from the* Iſland of Triſs, *and* Mr Jam Williams *has now ſent me one of the largeſt and faireſt I have yet ſeen, the Valve* 3 *inches long,* 2 $\frac{1}{2}$ *broad and* 1 *deep, yet weighed not* ʒij *and* ϑij.

10. *Muſculus* BARBADENSIS exiguus, cardine ſerrato.

Muſculus parvus, ſubluteus, anguſtus, leviter ſtriatus *Liſt.* H. C. L. 3. Tab. 365. Fig. 205. The ſmall Barbadoes Muſcle. *This is a deep, thin, light, ſmall, finely ſtraited Shell; a pair of the largeſt was but an inch long,* $\frac{1}{2}$ *inch broad, and both valves not* $\frac{1}{2}$ *inch deep, weighed ſcarce* 6 *grains; by*

theſe

heſe marks and its long notcht hinge, it's eaſily known from moſt others.

11. *Muſculus* CAROLIN. albus, faſciatus. 11

The Figure *of* Dr Liſter's Jamaica *Tellina* tenuis ad umbonem extra maxima rubeſcente L. H. C. l. 3. Tab. 397. Fig. 236. *in bigneſs, ſhape, thinneſs and* faſciæ *very well reſembles this Shell, which is ſomewhat narrower, and I meet with none of that redneſs he ſpeaks of; the moſt lively have a yellowiſh caſt within. A Valve of 3 inches and* $\frac{1}{2}$, *long and near* 1 $\frac{1}{2}$ *broad, weighs but little more than a dram; it's very ſhallow,* viz. *about* $\frac{1}{8}$ *of an inch deep.*

12. *Muſculus* albus JAMAICENSIS ſplendens radiis rubris. 12

Tellina magna albida ex rubro late radiata L. H. C. l. 3. *Tab.* 393. Fig. 240. The red Beam'd Jamaica Muſcle.

This elegant Shell Mr Charles Dell *ſent me once from the* Lands-end *of* Cornwal, *after that* Major Halſtead *brought it me from* Carolina, *and* Mrs Rachel Chapman *lately from* Antegoa. *I have a fair little pair, which weighs but 7 grains, and the half of another,* viz. *one Valve, which weighs* 127. *This laſt is near 3 inches and* $\frac{1}{2}$ *long, 1 and* $\frac{3}{4}$ *broad, and little more than* $\frac{1}{2}$ *inch deep: the dead Shells are white and ſhining, the others have red beams, which ſhoot from the hinge, and are broader at the edges; theſe are ſometimes more conſpicuous within than without; the laſt red, that decays in this Shell, is the Noſe of its Hinge.*

13. *Muſculus* CAROLIN. anguſtus. *an* Tellina alia *Braſiliana Bonan.* Conchyl. p. 163. Fig. 353? 13

This ſeems to be very well expreſt in Dr Liſter's Hiſtory *under the name of* Chama anguſtior ex altera parte ſinuoſa L. H. C. l. 3. Tab. 421. Fig. 265. *who had it from* Barbadoes. *I have not yet ſeen it from thence, but have this to ſay of ours,* viz. *I find it of differing ſizes, the common or middling is 3 inches long and above one broad, (I always mean where wideſt) the depth of a ſingle Valve not* $\frac{1}{10}$, *all of which ſize weigh more than* ℥j, *ſome heavier, but none leſs.*

14 14. CAROLINA Dish Cockle, *Mus. Nost.* 383. *List.* H. C. l. 3. Tab. 328. Fig. 165.

I have a fair pair of these, near 4 *inches between the sides; and* 4 ½ *from head to tip, the Shell* 3 *inches and* ½ *high, yet weigh'd not* 6 *Ounces. A single Valve of a larger I have which weighs* ℥j, *and will contain half a pint of Water; it may conveniently be used for a drinking Cup or Porringer, and tho a thin light Shell, yet not easily broken.*

15 15. CAROLINA Egg-Cockle. *From its shape, smoothness and colour, the largest of these may be somewhat bigger than a Hens* Egg, *and decline gradually to the smallness of a Nutmeg. They are pretty slick white Shells, and may serve for Dram Cups,* &c. Mrs Rachel Chapman *brought me this from* Antegoa; *they are also found on the other* Islands, *as well as on the* Continent, *from whence* Major Halstead *hath obliged me with it.* Mus. Nost. 840. L. H. C. l. 3. Tab. 249. Fig. 83.

16 16. VIRGINIA Fritter Cockle. *Mus. nost* 842.

Dr Lister *in his* Hist. Conchyl. L. 3. Tab. 288. *has given a very exact* Figure *of this Shell; it's round, flat and fine girdled; the common size is of the following dimensions,* viz. *from head to the opposite edge* 2 *inches and* ½, *and from side to side* 2 ¾. *The whole Shell wants of* ℥j *and* ¼, *and is not an inch high.*

17 17. *Pectunculus* BRASILIANUS, albus, undis capillaceis majoribus. *Pectunculus* parvus albus, profundior tenuiter undatus L. H. C. l. 3. Tab. 301. Fig. 142. *an* Tellina *Brasiliana* lactea *Bonan.* Hist. Conchyl. 163. Fig. 349. The white *Brasile* File.

I have not yet seen them so large as Bonanni's Figure *represent.* Dr Lister's Icon, *which is very good, is as big as we generally meet them; this is distinguish'd from the next in being somewhat a thicker and higher Shell, the undulated* Striæ *much larger and very coarse.*

18 18. *Pectunculus* JAMA. C. rubescens, undis capillaceis tenuissimis. *Pectunculus* tenuis subruber, minutissimis striis

ſtriis undatis exaratus L. H. C. l. 3. Tab. 339. Fig. 176. The fine bluſh *Jamaica* File.

This Shell muſt be ſtrongly viewed to diſcover the elegant fineneſs of its waved ſtriæ, *reſembling the fineſt File I ever ſaw.*

19. *Tellina* parva radiata &c. GAZOPHYL. NATUR. Tab. 18. Fig. 4. The *Dominico* Tellen. *From the plenty of them on the South part of that Iſland, where Mr* James Penman *found them, and it was the only Shell that Shoar abounded with. They rarely exceed an inch in length, and half that in breadth, and ſuch a Valve weighs but* ϑß. *The fair ones of theſe are pretty Shells, and frequently found in Rock-work.* 19

20. *Pholas* CAMPECHEANUS anguſtus, muriculatus, cardine foraminoſo *nobis.* Pholas anguſtus albus, ſtrijs tenuibus exaſperatus L. H. C. l. 3. Tab. 432. Fig. 275. *whoſe* Figure *repreſents the right Valve,* viz. *that, that holding the outer part upwards, has its hinge, as you look on it in that poſture, againſt your Right hand; but what is ſtrange, I have not one Shell on that ſide the* Icon *repreſents it, amongſt* 20 *others, and therefore probably the Dr's Figure may be reverſed from one of theſe. The largeſt* Valve *I have yet met with is about* 4 *inches and* ½ *long, and* 1 *and* ¼ *where the broadeſt,* viz. *croſs the hinge, whoſe external holes in one of this proportion takes up an inch exactly, and they are generally about* 12 *in moſt ſizes; internally from the midſt of this, a thin furrowed lappet exerts itſelf near* ¼ *of an inch from the ſide of the Shell, by reaſon of which ſtanding out, it's eaſily broken, and therefore not always met with. This* Valve *wanted about* ϑß *of* 2 *drams. They are very thin, and no leſs brittle.* 20

21. *Pholas* VIRGINIANA. *Liſt.* H. C. l. 3. Tab. 434. fig. 277. 21

This is as thin as the laſt, tho much larger, viz. *One which Mr* Parke *brought me from* Virginia *was* 5 *inches and a half long, and* 2 *croſs the hinge broad, yet weighed not quite* ʒß. *This has the internal cardos hanging like the laſt,*

laſt, but herein it chiefly differs, that it's lunular Murices *are much larger, and in the place where the outer hinge was perforated, this is ſupplied by one channel.*

22 22. *Pholas* CAROLIN. e capite tantum muricatus, cardine ferè bidente. *Nob.* an *Pholas* albus anguſtus ad dimidium fere dorſi lævis *Liſt* H.C. l. 3. Tab. 431 *Fig.* 274? *Whoſe name better agrees with this Shell than the magnitude of its Figu ; this has no lappet, as had the two laſt, but inſtead thereof a double-toothed hinge, which lies much nearer the end than either of the aforegoing, from which part for near one third, the outer Shell is guarded with* 6 *or* 8 *more elevated lines than the reſt of the Shell, whoſe other* Striæ *are thicker ſet, and very little ; by which, and its ſmallneſs, it's from the others eaſily diſtinguiſhable, the largeſt Valve I have yet met with wants of* 2 *inches in length, and exceeds not* ¼ *where broadeſt, and weighs but* 15 *grains.*

23 23 *Pinna* CAROLIN. maxima lata, muricibus plurimis lunulatis *Dr* Lifter *has given a very exact* Figure *both for ſhape and magnitude of this elegant* Shell, Tab. 372. Fig. 213. *A Valve of which* Major Hallſtead *brought me from* Carolina ; *it's very large,* viz. 9 *inches long, and* 5 *where broadeſt, yet weighs but* 2 *ounces and* ¼, *being very thin and brittle, theſe lunular protuberances hold a ſort of circular or faſciated order, and at the ſame a ſtriated one alſo, theſe decay, as moſt others of this kind do where they approach the tip or hinge ; the outer Coat of this is apt to peel off, which under it diſcovers a dark ſhining* Mother of Pearl, *like that within, and only the remains of the exterior pertuberances are to be ſeen : I have lately received a* Mediterranean *one from* Father Bonanni *at* Rome, *much reſembling this, yet in ſome particulars differing, which I may have occaſion ſuddenly to ſhew.*

24 24. *Pinna* CAROL. minor prætenuis, tubulis lunuliſque majoribus armata. *This is leſſer and thinner than the laſt, it's externally piped towards the Mouth, and above theſe lunulated, they are thinner ſet, as the* Striæ *are ; brought me by the ſame hand with the laſt.*

25. *Pinna*

25. *Pinna* CAROL. craſſior, ſulcata. 25

This is apt to peel as No 23. *eſpecially the dead Shells, what its outward coat may be I am yet to learn.* Madam Williams, *from whom I received this, will I hope by the next ſend me them entire, and then I ſhall be the better able to ſay more of them.*

Sect. III. The following are ſingle Shells.

26. *Patella* lingualis CAROL. major lævis. *an* Patella ovalis, maculis exiguis rufis diſtincta *Liſt.* H. C. l. 4. S. 1. Tab. 545. fig. 33? *The firſt and largeſt of this kind was ſeveral years ſince given me by* Mrs Danſon, *who told me ſhe had it from the* Weſt Indies, *and I believe from her Father* Mr John Archdale, *my very good Friend, who was then* Governour *of* Carolina, *and I am the rather inclined to believe it, becauſe* Madam Williams *has now ſent me ſeveral of the ſame, tho leſs, from that place.* 26

I add Lingualis *to this ſort of* Patella *(till others give it a better* Epithet*) to diſtinguiſh it from the common ſorts, becauſe this has a tongue like* interſepimentum *almoſt covering half the inſide of the ſhell, reſembling the head of a* Canow. B. N.

27. *Patella* lingualis CAROL. compreſſa. 27

an *Patella* alba compreſſa lævis L. H. C. l. 4. S. 1. Tab. 545. Fig. 37?

This is a leſſer and much flatter Shell than the laſt, and the Tongue more elevated; I have obſerved this with ſome Ballani, *ſticking to a large* Heterotrophon Shell *brought me from the* Iſland of Trils *in the* Weſt Indies.

28. *Cochlea* CAROL. aurita, faſciis catenatis nigricantibus, undis fuſcis interpoſitis. *an* C. fuſca, cujus lineas ſpirales aliquot albicantes interſecant characteres quidam nigri L. H. C. l. 4. S. 5. Tab. 560. Fig. 4. operculo ejus ſtriato? *an* Rumph. *Tab.* 19. Fig. 5? The Welſh-pot Shell. *The faireſt and largeſt I ever yet ſaw, my hearty Friend* Mr Edm. Bohun *brought me from* Carolina, *it weigh'd above* 5 *drams, whereas* 28

whereas the common ſize weigh not two ; its ſpots and waves very much reſembles the colours on the common Welſh-ware or Pots.

29 29. *Cochlea* CAROL. aure magno, fuſco.

This is diſtinguiſht from all others I have yet met with, by the largeneſs of its Ear, *viz. a protuberance reſembling that part, in the* Navel of the Shell, *which in all live ones ſhew that part more or leſs brown, the biggeſt I have yet met with weigh'd near* ℥vi ; *the common ſize about half the weight.*

30 30. *Perſicoides* CAROL. claviculâ, gyrâ altè inciſâ.

The Shell moſt nearly reſembling this in all Dr Liſter's Hiſtory *is* Figur'd *in his* 4th Book and 13th Section, No 1. *were it not that the* Clavicula *of ours is much flatter and ſhorter, with a deep indented coyl.*

31 31. *Buccinum* CAROLIN. (an *fluviatile*) ovale.

I found this Shell amongſt ſome Foſſils, &c. *which my curious Friend* Mr Job Lord *ſent me not long ſince from* Carolina ; *the ſame* Dr Liſter, *my worthy Patron, gave me ſome years ſince with the proofs of two new* Plates *to his* Appendix ad Hiſtor. Conchyl. *in one of which he hath* Figured *it with this inſcription,* of his own writing, *è Flumine* CAROLINÆ.

32 32. *Buccinum* CAROL. ampullaceum, ſtriis caſtaneis, faſciis muricatis, majus.

Dr Liſter *has given a* Figure, Tab. 880. *which ſeems very much to repreſent this, excepting that his* Murices *are not ſo large as ours ; perhaps the Shell from whence he took his* Figure *might have them worn off, yet ſometimes in theſe bigger Shells you may obſerve them threefold, one diſtinctly over the other, which caſing is alſo ſeen on the right lip of the Shell, as the* Dr's Figure *has very well obſerved : Whether theſe be annual protruſions or growths, I dare not yet determine. The largeſt of this kind I have yet met with, abated but* ℥j *of a pound.*

33 33. *Buccinum* CAROL. ampullaceum ſtriis caſtaneis, faſciis muricatis minus.

In

In one of the Editions of Dr Liſter *his* curious Hiſtory of Shells, *Lib* 4. Sect. 13 *he has given an* Accurate Figure *of this ſmaller ſort, under* Cap. 1. De Buccinis ampullaceis lævibus aut certe minus asperis, *and indeed while theſe are young they may deſerve that character; amongſt ſeveral Mad.* Williams *ſent me of divers magnitudes, the leaſt was the moſt beautiful Shell, its baſis white, the edge of each Coat ſhaded with brown, having a white girdle croſs the middle of the upper orb or round: This weighs but* 3ij, *and I have traced them to be the ſame even to the laſt, which weigh'd near a pound. I obſerve the largeſt to be leſs beautiful, which may proceed from their age and decay.*

34. *Buccinum* ampullaceum ſtrijs Caſtaneis, faſcijs muri- 34
catis majus heteroſtrophon, *ex Inſula Triſſ.*

This differs from the next no otherwiſe than No 32 *did from the laſt,* viz. *in bigneſs, for that reaſon I inſert it here, tho I have as yet received it from the* Iſland of Triſs *only, from whence it was brought me by my Kind Friend* Mr Fiteild, Surgeon, *now living at* Rumford *in* Eſſex: Dr Liſter *confirms me alſo in my opinion, by giving a* Figure *of this great ſort,* Tab. 908. N 28. *and ſays it's the ſame with the leſs,* viz. *the next, this weighs one pound and near* 3 *qrs.*

35. *Buccinum* CAMPEACHIANUM ampullaceum, ſtrijs 35
Caſtaneis faſcijs muricatis, minus, heteroſtrophon. *Buccinum* ampull. ſtriatum muricatum item radiatim ex fuſco Liſt. H. C. l. 4. S. 13. Fig. opt. 27. Tab. 907. *To which he adds this comment,* Purpura marina exotica eaq; ſola Cochlea è Marinis eſt, quantum haſtenus vidi quæ, dextra ſiniſtrorſum torquetur. *This differs nothing from* No 33. *but in the rarity of its Mouth's place, this facing the Right hand, whereas all other Shells (a few excepted) incline to the Left. The Reverend* Mr Stoneſtreet *firſt gave me this rare Shell, and now* Madam Williams *another, it being the only one amongſt near half a ſcore of the other-Mouth'd.*

Sect.

Sect. IV. *The following are* Foſſils *ſent me from thence.*

36 36. *Gloſſopetra* CAROL. maxima nigreſcens ponderoſa.
This is one of the largeſt I have yet ſeen, being above three inches from the tip to the hollow or middle of the Root; this laſt part is very large and protuberant, the Teeth black, ſmooth on the edges, but in the middle much furrow'd; the whole very weighty.

37 37. *Gloſſopetra* CAROLIN. leviter ſerrata é nigro rubroque elegantèr variegata.
This is almoſt a ſtraight Tooth, i. e. *very little waving to either ſide, as moſt of them more or leſs do, its edges are rather pounc't than notch'd, from tip to the middle of the Root near an inch and half; its Toothy part is finely variegated with red and black.*

For theſe two, with ſome Foſſil Bones, *as* Vertebræ, &c. *and ſeveral other Curioſities, I am oblig'd to our ingenious Friend* Mr Job Lord, *from whom I have receiv'd ſeveral Collections; and am ſuddenly (according to advice) in expectation of more, which the Publick ſhall have an Account of, with the* Reptiles, Lizards, Inſects, *&c. which* Mad. Williams *hath alſo lately ſent me.*

II. *The*